# JC20 Rec'd PCT/PTO 2 6 APR 2005

## SEQUENCE LISTING

SEQ ID NO.1

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- 20 SEQ ID No.2

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SEQ ID No. 3

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SEQ ID No.4

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# 5 SEQ ID No.5

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SEQ ID No.7

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SEQ ID No.8

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50 SEQ ID No.9

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SEQ ID No.10

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SEQ ID No.11

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SEQ ID No.12

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# SEQ ID No.14

25

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## SEQ ID No.15

35 accagage to tgg g taccge tatgg cacagac coccacce ctcag cactacc cagettegg c g tgacct c catccc g a actacaa caactte cac g cactacaa cactacaaagctgggggccagggactcaccgtctttgggggtgtgaactcctcctctcacactgggaccctacgcacgaggagggacaggagtgacactgtttgt40 ggcgctttatgactatgaagcacggacggaagatgacctgagttttcacaaaggagaaaaatttcaaatattgaacagctcggaaggagattggtgggaa ccgcaaagatgctgagagacagctcctgtcctttggaaacccaagaggtacctttcttatccgcgagagccaaaccaccaaaggtgcctactcactttcc atccgtgattgggatgatatgaaaggggaccacgtcaaacattataaaatccgcaagcttgacaatggtggatactatatcacaacgcgggcccagtttga 45 taaagatgcttgggaagttgcacgtgactcgttgtttctggagaagaagctggggcaggggtgtttcgctgaagtgtggcttggtacctggaatggaaataaggaagtggaagtgggaagtgggaagtgaagt50 caaaggaagagtgccatacccaggcatgaacaaccgggaggtgctggagcaggtggagagaggctataggatgccctgcccacaggactgcccgat ctccctgcacgagctcatgatccactgctggaaaaaggatccggaagagcgcccgaccttcgagtacttgcagggcttcctggaggactactttacggccacaga geoccag tatca geoc g g t gaaaa acct g t g a g a g cott caga c g cott cott acccet coccat t a g cott caga c g cott cocca g g g cott cocca accet coccat t a g cott coccat t a g coccatgtagccagctgecccagagcaggagaaccgtccaggatcagattgcatgtgactcttgaagctgaacttccacggccctcattaatgacacttgtcccccagtccgaacctcctctgtgaaccatctgagacagaagcgtgttatttctcagacttggaaatgcattgtatcgatgttatgtcaaaggccaaacctctgttcagacttgtattgtcaaaggccaaacctctgttcagacttggaaatgcattgtattgtcaaaggccaaacctctgttcagacttggaaatgcattgtattgtcaaaggccaaacctctgttcagacttggaaatgcattgtattgtcaaaggccaaacctctgttcagacttggaaatgcattgtattgtcaaaggccaaacctctgttcagacttggaaatgcattgtattgtattgtcaaaggccaaacctctgttcagacttggaaatgcattgtattgtattgtcaaaggccaaacctctggaaatgcattgtattgtattgtattgtcaaaggccaaacctctggaaatgcattgtat55 tgtaaatagetgeteetgtgecaacaateecagtgettteetttttaaaaaagaaaaageaaateetatgtgatttaaetetgatteaeetgatteaactaaa 

MGCVQCKDKEAAKLTEERDGSLNQSSGYRYGTDPTPQHYPSFGVTSIPNYNNFHAAGGQGLTV

FGGVNSSSHTGTLRTRGGTGVTLFVALYDYEARTEDDLSFHKGEKFQILNSSEGDWWEARSLTT
GETGYIPSNYVAPVDSIQAEEWYFGKLGRKDAERQLLSFGNPRGTFLIRESQTTKGAYSLSIRDW
DDMKGDHVKHYKIRKLDNGGYYITTRAQFETLQQLVQHYSEKADGLCFNLTVVSSSCTPQTSG
LAKDAWEVARDSLFLEKKLGQGCFAEVWLGTWNGNTKVAIKTLKPGTMSPESFLEEAQIMKKL
KHDKLVQLYAVVSEEPIYIVTEYMSKGSLLDFLKDGEGRALKLPNLVDMAAQVAAGMAYIERM
NYIHRDLRSANILVGNGLICKIADFGLARLIEDNEYTARQGAKFPIKWTAPEAALYGRFTIKSDV
WSFGILLTELVTKGRVPYPGMNNREVLEQVERGYRMPCPQDCPISLHELMIHCWKKDPEERPTF
EYLQGFLEDYFTATEPQYQPGENL

SEQ ID No.17

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ggacgtcagactagagagtagggagagagagtggtctcgagggacagggctagcccggacgcgtgtccgcgcctcggaggtggcaagtaggcag cggcggggactcaaagaagaagcgaccacagcagccttctgaagatgggcagccccaagcccaggtgaccccggcggccccgcaccatcac gategacaaagaaategagetteacagactactgcaccataagcatgtegtgcagttttaccactactttgaagacaaagaaaacatttacattetettggaa tactg cagtag aag gtccatggctcacatcttg aaag caagaaag gtgttg acagag ccagaag tccgatactacct cagg cagattgtgt caggact cagact caggact cagact cagactcat cattegg cat gattet tete cag g g tite act cegg a cag act cette cag c titte cac a cag at the caeting catter can get the catgcgaatgccttgaagacagcaccatgggaagtgttgcagacacagtggcaagagtccttcgaggatgtctagaaaacatgccggaagctgactgtatcccca a agag cag ct gag cae g to cttic agt g g to accae agt g g to accae acae at a t g ctt g g to cae accae agt g g to cae accae accttcgaagacctcggctctacctcctgcagtggttaaagtctgataaagccttaatgatgctcttcaatgacggcacatttcaggtgaatttctaccacgatcatacaaaaatcatcatctgtaaccagagtgaagaataccttctcacctacatcaatgaggacaggatctctacaactttcagactgacgactctgctgatgtctg getgttcgttagaattgaaaaatcgaatggaatatgccctgaacatgctcttacagagatgtaactgaaaacattattattattattattattattattcgagcggacct catggg act cttttccactgtg agat caa cagggaa agc cag cggaa agat acag agcatgt tagagaa gt cgga caggt ggt acgaat acaa ag cagggaa agat cagaga caggt ggt acgaat acaa ag cagggaa ag caggaa ag caggaa ag caggaa ag cagggaa ag caggaa ag cagatacacttcctgaaggggaggaggaggggggtgctcccttgctgtttaaaggctacaatcagagcagcttttggctgcttaactgtgaactatggccata 

# 45 SEQ ID No.18

MELLRTITYQPAAGTKMCEQALGKACGGDSKKKRPQQPSEDGQPQAQVTPAAPHHHHHHHSHS
GPEISRIIVDPTTGKRYCRGKVLGKGGFAKCYEMTDLTNNKVYAAKIIPHSRVAKPHQREKIDKE
IELHRLLHHKHVVQFYHYFEDKENIYILLEYCSRRSMAHILKARKVLTEPEVRYYLRQIVSGLKY
LHEQEILHRDLKLGNFIINEAMELKVGDFGLAARLEPLEHRRRTICGTPNYLSPEVLNKQGHGCE
SDIWALGCVMYTMLLGRPPFETTNLKETYRCIREARYTMPSSLLAPAKHLIASMLSKNPEDRPSL
DDIIRHDFFLQGFTPDRLSSSCCHTVPDFHLSSPAKNFFKKAAAALFGGKKDKARYNDTHNKVSK
EDEDIYKLRHDLKKVSITQQPSKHRADEEPQPPPTTVARSGTSAVENKQQIGDAIRMIVRGTLGS
CSSSSECLEDSTMGSVADTVARVLRGCLENMPEADCIPKEQLSTSFQWVTKWVDYSNKYGFGY
QLSDHTVGVLFNNGAHMSLLPDKKTVHYYAELGQCSVFPATDAPEQFISQVTVLKYFSHYMEE
NLMDGGDLPSVTDIRRPRLYLLQWLKSDKALMMLFNDGTFQVNFYHDHTKIIICNQSEEYLLTYI
NEDRISTTFRLTTLLMSGCSLELKNRMEYALNMLLQRCN

SEQ ID No.20

MKSGVCLCVVMAVLAAGALAQPVVPAEATDPVEQRAQEAPRRQLRAVLRTDGEPRARLGALL ARYIQQVRKAPSGRMSVLKNLQSLDPSHRISDRDYMGWMDFGRRSAEDYEYPS

SEQ ID No.21

cttggtgacactagacagagcaactccagcgttaccgctcccgctcctggtttctcggcttctcatcgcagtcaatcttggacttttggggttttgctactgtca20 gaaggacttctttctgcttcaagtgcttgacaacgcaccctttatcagggtatcagagcatcgccacagaatgaagctggtttccatcaccctgatgttattg ggcccctacaagccagcaatcagagcgaagcccacattcgtgtcaaacgctaccgccagagcatgaaccagggttcccgcagcaatggatgccgct 25 gggegcacatctccagactctttaggatataggtgcgggtgacagcattgaacagtcgggcgagtatcccgttggcgcctgcggaatcagagaacttcgagaacttcgagagaacttcgagagaacttcgagagaacttcgagagaacttcgagagaacttcgagaacttcgagagaacttcgagagaacttcgagagaacttcgagagaacttcgagagaacttcgagaactcaceggggeggactgagacaatcetgcagagatetgcctggctgcccctaggggaggcagaggaacccaagaccaagccaggctcatgccagaaa30 at a tag aggat at titt tit gtac gt tatat at tit gtat tag aggat at tatat geacht titt ag aggat gtat at titt gtac gt tatat at tit gtac gt tatat at titt gtac gt tatat gt tatattata at ctatta cataa aa tat gt gat ct g g gaa aa aa g caa ac caataa ac t gt ct caa t g ct g

SEQ ID No.22

- $\label{thm:linear} MKLVSITLMLLGSLAFLGADTAGPDTPSQFRKKWNKWALSRGKRELQASSSYPTGLADETTVPT\\ QTLDPFLDEQNTTGPLQASNQSEAHIRVKRYRQSMNQGSRSNGCRFGTCTFQKLAHQIYQLTDK\\ DKDGMAPRNKISPQGYGRRRRSLLEVLRSRTVESSQEQTHTAPGPWAHISRLFRI$
- 40 SEQ ID No.23

35

SEQ ID No.24

MGFLKFSPFLVVSILLLYQACSLQAVPLRSILESSPGMATLSEEEVRLLAALVQDYMQMKARELE QEEEQEAEGSSLDSPRSKRCGNLSTCMLGTYTQDLNKFHTFPQTSIGVEAPGKKRDVAKDLETN HQSHFGN

aaaggcagcctgataaagctccttgtgacaggctgtcttgccagtctcccagtatgctcctcttgctctgaagtgctccaggattgaaaccacagcttcccaa attag cctgggaag agtgtgcggacccag cag ccttttaacccgcgtcag tgcctttgctatgttcaag actgctgttttggatggtgaatgctagctagc5 actccatcgagacatgacagcaaaaaattctccaaaagaatttactgcttcggaatctgaggtttgcataaagactttcaaggagcagatgcgcttggaact aaaagcatccgacagcggcgtcgcttcacggtggctcatacatgctttgatgtggaaaatggcccttctccaggtcggagcccactggaccctcaagcc 10 aacaacttcaccctgctgacgaaccttcatggagcgccgaacaagaggtcaccagcggctagtcaggctccagtctccagagtcagcctgcaagagga at cata teagaa actage a at each actage actage against a grant at each actage accate cagacitate against a catage actage actage against a catage actage accate cagacitate against a catage actage actactt caa acaagtt caa aaggat get gaa ee gggag et gae ac accete te agagat gag ea gat ea gggaa ee aggt gt et gag ta catt te aa acaagtt gag ea gat ea gggaa ee aggt gt et gag ta catt te aa acaagtt gag ea gat ea gggaa ee aggt gt et gag ta catt te aa acaagtt gag ea gat ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagtt ea gggaa ee agg ta catt te aa acaagt ea gggaa ee agg ta catt te aa acaagt te aa acaagt ea gggaa ee agg ta catt te aa acaagt te15 gacctgaacaaatggggccttaacatcttcaatgtggctgggtactcacataatcggccccttacgtgcatcatgtatgcaatattccaggaaagagacctt20 ca act gat at gtcca a accat gag cet cet gg cagac etta a a accat gg taga a acca ag gag gg accat gag accat accat gag accat gagtggaggagtttttccagcagggagacaaagaacgggagaggggaatggagattagcccaatgtgtgataagcacacagcttctgtggaaaaatcccag aactggtaccagagtatgataccccagagcccttccccgccactggatgagaggaggagcaggactgccaaggcctgatggagaagtttcagtttgaactg 25 cettgactgag catge cegetgag tgg taggg teacetac catgg ceaa gg cet geae ag gae aa ag gee ac et gee cittee ag ttactt gag ttt gg ac gae ag gae ac gae ag gae ac gae ag gae aggccaga at gccagg ccgtga ag caa at ag cag ttccat gct gtctt gcct gcaa gct t ggc gg ag acccg cag ct gt at gt gg tag tag ag gccag at gccag and gccag ag acccg gas gccag at gccag and gccag ag acccg gcag at gccag and gccag ag acccg gas gccag at gccag and gccag gccag acccg gccag at gccag ag acccg gccag at gccag ag acccg gccag at gccag acccg gccag at gccag acccg gccag ac30 tcacta a caactic at cata a a a total caccacca acccatig to general catalog and the cactalog and the caccaccaccaccaccide and the caccac accident and t

## SEQ ID No.26

- 35 MTAKNSPKEFTASESEVCIKTFKEQMRLELELPKLPGNRPTSPKISPRSSPRNSPCFFRKLLVNKSI
  RQRRRFTVAHTCFDVENGPSPGRSPLDPQAGSSSGLVLHAAFPGHSQRRESFLYDLDSDYDLSPK
  AMSRNSSLPSEQHGDDLIVTPFAQVLASLRSVRNNFTLLTNLHGAPNKRSPAASQAPVSRVSLQE
  ESYQKLAMETLEELDWCLDQLETIQTYRSVSEMASNKFKRMLNRELTHLSEMSRSGNQVSEYIS
  NTFLDKQNDVEIPSPTQKDREKKKKQQLMTQISGVKKLMHSSSLNNTSISRFGINTENEDHLAKE
  40 LEDLNKWGLNIFNVAGYSHNRPLTCIMYAIFQERDLLKTFKISSDTFVTYMMTLEDHYHALAVAY
- HNSLHAADVAQSTHVLLSTPALDAVFTDLEILAAIFAAAIHDVDHPGVSNQFLINTNSELALMYN
  DESVLENHHLAVGFKLLQEEHCDIFQNLTKKQRQTLRKMVIDMVLATDMSKHMSLLADLKTM
  VETKKVTSSGVLLLDNYTDRIQVLRNMVHCADLSNPTKSLELYRQWTDRIMEEFFQQGDKERE
  RGMEISPMCDKHTASVEKSQVGFIDYIVHPLWETWADLVQPDAQDILDTLEDNRNWYQSMIPQ
- 45 SPSPPLDERSRDCQGLMEKFQFELTLEEEDSEGPEKEGEGHSYFSSTKTLCVIDPENRDSLEETDID IATEDKSPIDT

# SEQ ID No.27

SEQ ID No.28

MQSAMFLAVQHDCVPMDKSAGNGPKVEEKREKMKRTLLNHWKTRLSYFLQNSSAPGKPKTGK
KSKQQTFIKPSPEEAHVWAEAFDELLASKYGLAAFRAFLKSEFCEENIEFWLACEDFKKTKSPQK
LSSKARKIYTDFIEKEAPKEINIDFQTKSLIAQNIQEATSGCFTTAQKRVYSLMENNSYPRFLESEF
YQDLCKKPQITTEPHAT

SEQ ID No.29

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- aaaaagtatatgaggacaaatgtaaggcaaatgaccatggaaacagttgaatcacagcaggatcgaagtgtaacacgttctgtggcagagcatagctct gctcatatgcagactggtcaaatttctgttcctactctagctcaggtagcaacaattgcagagacagatgattctgcagactcagaagtaattgattcgcata aacgtagagaaattettteacgaagacceteatatagaaaaatactgaatgaacttteetetgatgtgeetggtatteecaagattgaagaagaaaaateaga ggaagaagggacaccacctaacattgctaccatggcagtaccaactagcatatatcagactagcacggggcaatacaatgaggagactgaccttgccc 20 caagtcacatggctgctgccacaggtgacatgccaacttaccagatccgagctcctactactgctttgccacaaggtgtggtgatggctgcctcaccagg ggaagaagaaagaatatgtcaaatgtcttgaaaatcgtgtggctgtgcttgaaaatcaaaacaagaccctcattgaggaactcaaggccctcaaagaccttgtag at ggg to totta accett gct ta agaat ac agt ct gct gtag ag t ggaat tag ggaat ac t gt to cat ggg t to gaat gc gaa25 gtgaagtgtcttgaagtcgcagtgctggaagttcagaacaagaagcttatagaggagcttgaaactttgaaagacatttgctctcccaaaacagaagttagaagttgaaactttgaaagacatttgctctcccaaaacagaagttagaagttgaaactttgaaagacatttgaaagacatttgctctcccaaaacagaagacattagaagagagttgaaactttgaaagacattgaaagacattgaagacattgaaagacattgaaagacattgaaagacatttagtagaaa tatttaactat gaact gattacag cat gtacag ttgctttt gaat gcaatacaaa tataag ccgg caagaat tat ggcttttccttt gtat catter and the same of the same30 ta aga at catttt agga a agggt ga at caa agg cagt g cat ctctcc agt ag ta aga ta aa at caacccat ag ag at acct cag ga aa ga at ga aa ga at catt ta agga at acct cag ga aa ga at ga aa ga aa ga at ga aa ga aactggatcag cag cott g caa at a ctggg c catt t cattag agga caa cag cag gg ctct aggag cag agt t cag t g t g cat g ct a ctg cat g ct ag cag aggar ca35 atgttcagttgaaagggaagacctcaagctctgcaaatggaatggggtccaggggaagaggttagaggttagcctttgtgctgtactaggcttcttgctgat cgtctggagagtttctgctgatgaccctccattgtgaattcttgcaacctcaggaatgttaacgtttaaaaaacttcccaagatgtcatttttgattttacaacttg gatca atttt gtttt getettt ggaatat aget gt geacht tig teae gt ag get tag get tag get tag ag et tag get tag ge
- 40 SEQ ID No.30

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MTMETVESQQDRSVTRSVAEHSSAHMQTGQISVPTLAQVATIAETDDSADSEVIDSHKRREILSR RPSYRKILNELSSDVPGIPKIEEEKSEEEGTPPNIATMAVPTSIYQTSTGQYNEETDLAPSHMAAAT GDMPTYQIRAPTTALPQGVVMAASPGSLHSPQQLAEEATRKRELRLMKNREAARECRRKKKEY VKCLENRVAVLENQNKTLIEELKALKDLYCHKAE

SEQ ID No.31

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## SEQ ID No.32

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SEQ ID No.35

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SEQ ID No.37

20 SEQ ID

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SEQ ID No.38

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SASCPELCSKQSTPTGLSLPLSTSVPDSAESGCSSCSTPLYDQGGPVEILSFLYLGSAYHASRKDM
LDALGITALINVSANCPNHFEGHYQYKSIPVEDNHKADISSWFNEAIDFIDSIKDAGGRVFVHCQA
GISRSATICLAYLMRTNRVKLDEAFEFVKQRRSIISPNFSFMGQLLQFESQVLAPHCSAEAGSPAM
AVLDRGTSTTTVFNFPVSIPVHPTNSALNYLKSPITTSPSC

SEQ ID No.39

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SEQ ID No.40

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ILLDMWENKGENEWLHDHCMQVGDAYLIVYSITDRASFEKASELRIQLRRARQTEDIPIILVGNK
SDLVRCREVSVSEGRACAVVFDCKFIETSAAVQHNVKELFEGIERQVRLPRDSKEKNERRLAYQ
KRRESIPRKARRFWGKIVAKNNKNMASSSKSKSCHDLSVL

25 SEQ ID No. 41

SEQ ID No.42

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MKTPAQRLHLLPLLLLCGECAQVCGCNETGMLERLPRCGKAFADMMQKVAVWKWCNLSEFI VYYESFTNCTEMETNIMGCYWPNPLAQSFITGIHRQFFSNCTVDRTHWEDPPDEVLIPLIAVPVV LTVAMAGLVVWRSKHTDRLL

SEQ ID No. 43

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# 5 SEQ ID No. 44

MLNKAKNSKSAQGLAGLRNLGNTCFMNSILQCLSNTRELRDYCLQRLYMRDLGHTSSAHTALM EEFAKLIQTIWTSSPNDVVSPSEFKTQIQRYAPRFMGYNQQDAQEFLRFLLDGLHNEVNRVAARP KASPETLDHLPDEEKGRQMWRKYLEREDSRIGDLFVGQLKSSLTCTDCGYCSTVFDPFWDLSLPI AKRGYPEVTLMDCMRLFTKEDILDGDEKPTCCRCRARKRCIKKFSVQRFPKILVLHLKRFSESRI RTSKLTTFVNFPLRDLDLREFASENTNHAVYNLYAVSNHSGTTMGGHYTAYCRSPVTGEWHTF NDSSVTPMSSSQVRTSDAYLLFYELASPPSRM

## SEQ ID No.45

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## SEQ ID No. 46

MSTAGVAAQDIRVPLKTGFLHNGQALGNMKSCWGSHSEFENNFLNIDPITMAYNLNSPAQEHLT
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RRSFRGCGQINYAYFDSPTVSVADLSCASDQNRVVPDPNPPPPQSHRRLRRSHSGPAGSFNKPAI
RISSCTHRASPSSDEDKPEVPPRVPIPPRPAKPDYRRWSAEVTSNTYSDEDRPPKVPPREPLSRSNS
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LPERPPYLDKYEKYFKEAEETNPSTQIQPLPAACGMASATEKLASRMKIDMGSHGKRKHLSYVV
SP

5 attgacagaagtgtccaggcttccctggaaagccagaagaagctcaactggtgtcgtgaagtcaggaagctcgtggatgctctgaaaaccaatggtgatgga ctcggaactttaaattccgctggcagctggaatctctgaaatctcaggaatttgtggaaacaggactttgctacgacactcggaactggaatgacgaatgg gacaacttggtcaaaatggcatcagcagacacacctgcagcccgaagtggacttcagtacaattccctggaagaaatccacatatttgtcctcagcaacat 10 cgctgttccacttgttaacagagaccggggtaggtttgaagacttaaaagttcacttcttgacagatcctgagaatgagatgaaggaaaagcttclaaagga gtacttgatagtgatggagatccctgtgcaaggctgggaccacggcacgactcacctgatcaacgctgcaaaattggatgaagctaacttacccaaagaa cccttggagccttccacaccccagctatcactcatggatataaaatgtgagacacccaactgtcctttcttcatgtccgtgaacactcagcctttatgccac15 ga at get cag ag ag geg ce caa aa ga at cag ag ct ce caa ag ct ga act cga ag ct ag gee ct ga ag ga ct ce cag geg t gg ga ct t gg ct cet t ga ag ga ct ce cag geg t gg ga ct t gg ct cet t ga ag ga ct ce cag geg t gg ga ct t gg ct cet t ga ag ct cag ag ga ct cet ga ag gacaaactggagccccgaggaaaccgctggaggacctcattcagccccaccaccagcacccagcctttttcttctagtgagaccactgcaatgaagtgca a agt gecaag cet gect te agg at gte acteg gae citta at gg catet ge agt acct gtt te aa aag gae ta cag cag ag ce cag cit cag cet te acteg and the contract of the contract grant gra20 at gtcccgtgcctgggcagggagtgcggcacactcggaagcaccatgtttgaagggtactgtcagaagtgtttcatcgaagctcagaaccagagattccatgaag caagaag aa cag cag cag catagag acat cag catagag acat cacac cag catagag cataga25 ccaegcetgaagageeeetaaaeagegetgeegggeeeetgettgtgateaetttggeaatgeeaagtgtaatggttaetgeaatgagtgetaeeagtteeundelike to be a standard of the control of the contraagcagatgtatggctaa

## SEQ ID No.48

MAEQLLPQALYLSNMRKAVKIRERTPEDIFKPTNGIIYHFKTMHRYTLEMFRTCQFCPQFREIIHK 30 ALIDRSVQASLESQKKLNWCREVRKLVALKTNGDGNCLMHAACQYMWGVQDTDLVLRKALC STLKETDTRNFKFRWQLESLKSQEFVETGLCYDTRNWNDEWDNLVKMASADTPAARSGLQYN SLEEIHIFVLSNILRRPIIVISDKMLRSLESGSNFAPLKVGGIYLPLHWPAQECYRYPIVLGYDSQHF VPLVTLKDSGPELRA VPL VNR DRGRFEDLK VHFLT DPENEMKEKLLKEYLIVMEIPVQGWDHGT 35 THLINAAKLDEANLPKEINLVDDYFELVQHEYKKWQENSDQARRAAHAQNPLEPSTPQLSLMDI KCETPNCPFFMSVNTOPLCHECSERRQKNQSKLPKLNSKLGPEGLPGVGLGSSNWSPEETAGGP HSAPPTAPSLFLFSETTAMKCRSPGCPFTLNVQHNGFCERCHARQINASHTADPGKCQACLQDVT RTFNGICSTCFKRTTAEPSSSLTSSIPASCHQRSKSDPSQLIQSLTPHSCHRTGNVSPSGCLSQAART PGDRAGTSKCRKAGCMYFGTPENKGFCTLCFIEYRENKQSVTASAKAGSPAPRFQNNVPCLGRE 40 CGTLGSTMFEGYCOKCFIEAQNQRFHEARRTEEQLRSSQHRDMPRTTQVASRLKCARASCKNIL ACRSEELCMECQHLSQRVGSVAHRGEPTPEEPPKQRCRAPACDHFGNAKCNGYCNECYQFKQM YG

## SEQ ID No. 49

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